

CLAIMS:

1. A door lock having a lock body, an external handle and an internal handle, a rotatable interconnecting member to interconnect the internal handle and the external handle, and a mechanism to allow the lock to have a passage mode, and/or a privacy mode and/or a deadlock mode, the mechanism comprising an outer hub and
5 an internal hub which are inside the lock body.
2. The lock of claim 1, wherein the outer hub and the internal hub are positioned next to each other with the internal hub being positioned behind the outer hub and between the outer hub and the lock body.
- 10 3. The lock of claim 2, wherein the outer hub and the internal hub are substantially planar in configuration and comprise members which are adapted for rotation in the lock body.
4. The lock of claim 2, wherein the outer hub is attached to the interconnecting member such that rotation of the interconnecting member causes
15 rotation of the outer hub.
5. The lock of claim 4, wherein the internal hub is operatively associated with the internal handle such that rotation of the internal handle causes rotation of the internal hub.
6. The lock of claim 5, comprising engagement means on the internal hub
20 and the outer hub to allow the internal hub and the outer hub to engage with a locking bar.
7. The lock of claim 6, wherein the engagement means comprises a recess in each hub.
8. The lock of claim 1, comprising a locking bar which is movable
25 between a locking position where the locking bar engages with the outer hub and/or the internal hub, and a free position where the locking bar does not engage with the outer hub and/or the internal hub.
9. The lock of claim 8, wherein the locking bar is movable between the locking position and the free position in a sliding manner or a rotating manner or a
30 combination of a sliding and rotating manner.
10. The lock of claim 9, wherein the locking bar is substantially plate like in configuration and contains a nose portion which is adapted for engagement with the internal hub and the outer hub.

11. The lock of claim 8, wherein the mechanism to allow the lock to operate between a passage mode and a privacy mode comprises the internal hub, the outer hub and the locking bar.
12. The lock of claim 11 wherein when the mechanism is in the passage mode, the locking bar is in the free position enabling the lock to be opened from either side of the door.
13. The lock of claim 12, wherein when the mechanism is in the privacy mode, the locking bar is in the locking position which prevents operation of the external handle but still allows operation of the internal handle.
- 10 14. The lock of claim 8, wherein the locking bar is movable between its locking position and its free position by an external member.
- 15 15. The lock of claim 14, wherein the external member is a snib mechanism which comprises an external snib on the outside of the lock which can be manipulated to move the locking bar between the locking position and the free position.
16. The lock of claim 15, wherein the snib mechanism comprises a rotatable member containing an eccentric pin which is attached to the locking bar such that a crank type mechanism is provided whereby rotation of the external snib causes reciprocal movement of the locking bar.
- 20 17. The lock of claim 16, wherein when the mechanism is in the privacy mode, operation of the internal handle causes the locking bar to move from the locking position to the free position.
18. The lock of claim 17, wherein the internal hub has a recess formed with a ramped surface whereby rotation of the internal causes the inclined surface to engage with the nose portion of the locking bar to push the locking bar out of engagement with the internal hub.
- 25 19. The lock of claim 8, comprising at least one lock cylinder.
20. The lock of claim 19 comprising two lock cylinders being an external lock cylinder and an internal lock cylinder the internal cylinder being key operated from the inside of the door and the external cylinder being key operated from the outside of the door.
- 30 21. The lock of claim 20, wherein the internal cylinder is operatively associated with the locking bar such that operation of the internal cylinder operates the

locking bar between the locking position and the free position.

22. The lock of claim 21, wherein the internal cylinder deadlocks the locking bar into the locking position.

23. The lock of claim 21, comprising a first drive member to drive the locking bar between the locking position and/or the free position.

24. The lock of claim 23, wherein the internal cylinder has a cam, and the drive member is rotatable and is operated by the cam of the internal cylinder such that insertion and rotation of a key in the internal cylinder causes rotation of the internal cam which in turn operates the drive member to move the locking bar between the locking position and the free position.

25. The lock of claim 20 comprising a mechanism to operate the lock between the deadlock mode, the privacy mode and the passage mode from the outside of the door, the mechanism comprising the external cylinder which has a cam, the cam being rotated upon insertion and rotation of the key in the external cylinder, the cam being operatively associated with the locking bar such that operation of the external cylinder moves the locking bar between the locking position and the free position and/or also deadlocks the locking bar in the locking position.

26. The lock of claim 25, comprising a second drive member which is operatively associated with the external cam such that rotation of the external cam causes rotation of the second drive member.

27. The lock of claim 26, wherein the second drive member is operatively associated with the first drive member such that rotation of the second drive member causes rotation of the first drive member and, as the first drive member may be associated with the locking bar, to cause the locking bar to move from its unlocking position to its locking position and vice versa.

28. The lock of claim 1 comprising a motor in the lock body to operate components in the lock body.

29. The lock of claim 28, wherein the motor is actuated by a remote control means.

30. The lock of claim 29, wherein the lock comprises a receiver to sense the remote control means.

31. The lock of claim 30, wherein the motor is operatively associated with the locking bar such that operation of the motor moves the locking bar between the

locking position and the unlocking position.

32. A remote control lock which contains a mechanism to allow the lock to have a passage mode and/or a privacy mode and/or a deadlock mode, and remote control means to allow at least some of the modes to be operated by remote control.

AMENDED CLAIMS

[(received by the International Bureau on 08 March 2005 (08.03.05);
new claim 33 added; remaining claims unchanged (1 page)]

32. A remote control lock which contains a mechanism to allow the lock to have a passage mode and/or a privacy mode and/or a deadlock mode, and remote control means to allow at least some of the modes to be operated by remote control.
- 5 33. A lock containing three separate modes being a deadlock mode, a privacy mode and a passage mode.